

USING GAMES AND GAMIFICATION TO FOSTER **SERIOUS PLAY** IN HIGHER EDUCATION

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PRESENTATION OVERVIEW

- ❖ Constraints and needs of university professors
- ❖ Play as a subjective phenomenon that requires a ludic attitude
- ❖ Focusing on serious play instead of serious games
- ❖ Fostering a ludic attitude in the context of a university classroom
- ❖ Challenging the idea that sophisticated technologies and gameplay are needed to foster serious play

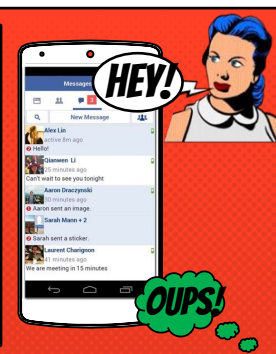
BASIC NEEDS AND CONSTRAINTS...

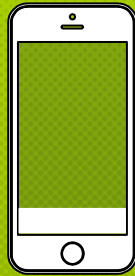
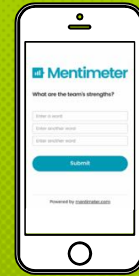
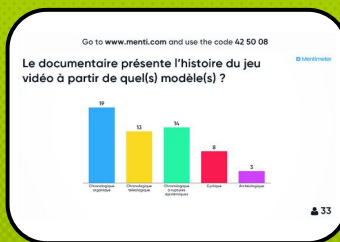
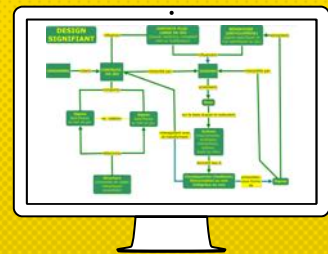
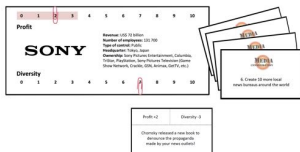
STUDENTS BROWSING AND TEXTING IN CLASS

48 % of the students « often » send text messages during their course and 15% browse the Internet (Michaut and Roche, 2017; Clayson and Haley, 2013)

Students spend 37% of their time browsing the web during a course (Ravizza and al., 2016)

Facebook uses 34% of the WIFI bandwidth at Université Lyon-III (Nunès, 2018)



FIRST SOLUTION:**FILLING THE STUDENTS' SCREENS****USING ONLINE VOTING SYSTEMS TO COLLECT FEEDBACK AND CREATE QUIZZES****USING ONLINE VOTING SYSTEMS TO COLLECT FEEDBACK AND CREATE QUIZZES****USING A CONCEPT MAPPING SOFTWARE TO CREATE PUZZLE GAMES****SECOND SOLUTION:****DIVERTING THE STUDENTS' ATTENTION FROM THEIR SCREEN****INSUFFICIENT TIME****SERIOUS GAMES FOR UNIVERSITY CLASSROOMS SHOULD:**

- BE EASY TO LEARN **AND** MASTER
- LAST BETWEEN **30 MIN** AND **1 HOUR**

INSUFFICIENT RESSOURCES

SERIOUS GAMES FOR UNIVERSITY CLASSROOMS SHOULD BE:

- PAPER GAMES THAT PROFESSORS CAN **PRINT** DIRECTLY
- APPLICATIONS THAT CAN BE PLAYED ON **SMARTPHONES** AND THAT STUDENT CAN ACCESS FOR **FREE**

DIVERSITY OF CONTENT

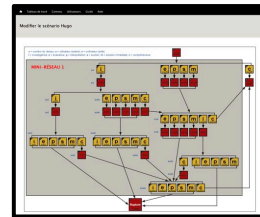
UNIVERSITY PROFESSORS NEED:

- GAME **TEMPLATES** THAT THEY CAN **EASILY CUSTOMIZE** AND FILL WITH THEIR OWN CURRICULAR CONTENT

A CONVERSATION WITH HUGO

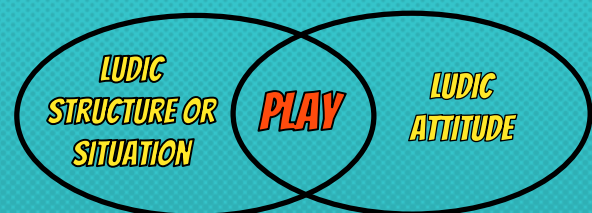


CONTENT EDITOR SECRA (CCDMND)



SERIOUS GAMES DO **NOT** ALWAYS
GENERATE SERIOUS PLAY...

PLAY IS A **SUBJECTIVE** PHENOMENON



"If the material and structure of the thing we are playing with do not take on a ludic meaning and value when someone decides to use it for playing, the result is that the only thing we should define when it comes to play is the type of thinking, the mental attitude, the special consciousness of the person who discovers, within this material and this structure, occasions or means of playing"

(my translation, 1989 : 123)

JACQUES HENRIOT

GAME STUDIES

WHAT ARE GAMES DOING TO PEOPLE?

VS

WHAT ARE PEOPLE DOING WITH GAMES?

PLAY STUDIES

"A game is a system in which **players engage** in an artificial conflict, defined by rules, that result in a quantifiable outcome" (2004: 80)

KATIE SALEN & ERIC ZIMMERMAN

"A game is a rule-based formal system with a variable and quantifiable outcome, where different outcomes **are assigned different values**, **the player exerts effort** in order to influence the outcome, the **player feels attached to the outcome**, and the consequences of the activity are negotiable" (2005 : 36)

JESPER JUUL

OBJECTS WITH LITTLE PLAY POTENTIAL CAN ALSO BE APPREHENDED WITH A LUDIC ATTITUDE ...



FOSTERING A LUDIC ATTITUDE IN THE CLASSROOM

- ❖ not all students are players
- ❖ the activity is not entirely free and voluntary
- ❖ the context of the classroom is usually not "framed" as play and playing outside of an "appropriate" context can be embarrassing for some people (Deterding, 2014)

SKEPTICISM TOWARDS TRADITIONAL GAMIFICATION TECHNIQUES



**GAMIFICATION
TECHNIQUES CAN FEEL
LIKE AN *ELECTRONIC WHIP***



GAMIFIED REWARD SYSTEM

Code permanent	TOTAL XP	1st quarter	2nd quarter	3rd quarter	4th quarter
ARC02000000	20				
BLK02200000	80				
BOM02700000	120				
BON02000000	80				
CANN07500000	80				
CHAE04000000	80				
CHAE04000000	100				
CHAE04000000	60				
COO027000000	60				
DAU02000000	60				
DESP01000000	100				
DOE02000000	100				
DOE02000000	60				
DOE02000000	60				
DOE02000000	60				
DOE02000000	80				
DOE02000000	100				
DOE02000000	120				

**HOW CAN WE FOSTER
A LUDIC ATTITUDE IN
THE CLASSROOM?**



**PLAY IS A
VOLUNTARY
AND FREE
ACTIVITY**



MAKING PLAY OPTIONAL

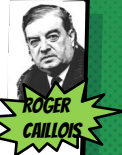
**THE PLAYFUL ATTITUDE IS FAVORED BY
THE FEELING OF BEING *FREE TO PLAY***

FOCUSING LESS ON LUDUS AND MORE ON PAIDIA

LUDUS
Rule-driven
pole of play



PAIDIA
Free exploration,
improvisation and
creativity



**ROGER
CAILLOIS**

CREATING AND PLAYTESTING A CARD GAME WITH A TEMPLATE AND CURRICULAR CONTENT

Profit	1	2	3	4	5	6	7	8	9	10
Name of the company : Type of company : Number of employees : Assets : Specialization :										
Diversity	1	2	3	4	5	6	7	8	9	10

1	2	3	4	5	6	7	8	9	10
1	2	3	4	5	6	7	8	9	10
1	2	3	4	5	6	7	8	9	10
1	2	3	4	5	6	7	8	9	10
1	2	3	4	5	6	7	8	9	10

CREATING AND PLAYTESTING A ROLE- PLAYING GAME WITH A TEMPLATE AND CURRICULAR CONTENT

Character Sheet	
Character details	
Name	
Age	
Gender	
Height	
Weight	
Eye color	
Hair color	
Birth date	
Birth place	
Current status	
Current location	
Current occupation	
Current education	
Current skills	
Current abilities	
Current weaknesses	
Current strengths	

CREATING A MACHINIMA



FAVORING INTRINSIC REWARDS



**JANE
MCGONIGAL**

"I don't think anybody should make games to try to motivate somebody to do something they don't want to do. If the game is not about a goal you're intrinsically motivated by, it won't work" (March 14, 2015)

GAMIFIED WORKSHOPS SHOULD BE PRESENTED TO THE STUDENTS AS **AUTOTELIC*** ACTIVITIES

* FROM THE GREEK *AUTOTELES*

- ❖ AUTOS : SELF
- ❖ TELOS : GOAL

PROFESSORS SHOULD INSIST ON *INTRINSIC* REWARDS SUCH AS:

- ❖ **POSITIVE EMOTIONS**
- ❖ **SOCIAL CONNECTIONS**
- ❖ **FEELING OF MASTERING A KNOWLEDGE**
- ❖ **CONTRIBUTION TO SOMETHING BIGGER**

FAVORING TEAM WORK AND COOPERATION

- ❖ What keeps people playing at a game is **social** (Jansz and Tanis, 2007)
- ❖ Online gaming is foremost motivated by possibilities of **cooperation** and communication (Frostling-Henningsson, 2009: 257)
- ❖ Cooperative contexts encourage players to engage with the objectives of the game **more than competitive** contexts (Peng et Hsieh, 2012)
- ❖ Players are more engaged when they are **copresent** in the same physical space (Greenberg and Volda, 2008)

FAVORING TEAM WORK AND COOPERATION

- ❖ 66% of Canadian university students feel « **very lonely** » (Beaudette, 2016)
- ❖ The feeling of loneliness is the main cause of **depression** and psychological distress among students (Lessard, 2016; FAÉCUM, 2016)

FAVORING HEALTHY-COMPETITION

MOST PLAYERS PREFER TO PLAY AGAINST OTHER *HUMANS* THAN AGAINST AI SINCE IT TRIGGERS STRONGER *EMOTIONS*

(MANDRYK AND INKPEN, 2004)

FAVORING HEALTHY-COMPETITION

- ❖ 47% of PhD students and 37% of master students have episodes of **depression, anxiety and burnout**
 - ❖ Students sleep on average 6.6 hours / night
- (Panger and al., 2014; Lessard, 2016)

**OPTING FOR THE FORMULA:
"NOTHING TO LOSE AND
EVERYTHING TO *GAIN*"**



SEBASTIAN DETERDING



FRAMING A SERIOUS ACTIVITY AS PLAY

Gamification is about framing a serious activity as play and using social signals to sanction this framing (2016: 312-324)





The two monkeys' actions or signals were similar but not identical to those of combat (1972)

GREGORY BATESON

It was evident for both of them and for the human observer that they were not really fighting (1972)

GREGORY BATESON

THIS IS PLAY! These actions in which we now engage do not denote what those actions for which they stand would denote. (1972: 211)

GREGORY BATESON



LUDIC INTERPRETATIVE FRAMEWORK

TO PLAY TOGETHER, PEOPLE HAVE TO ACCEPT A **METARULE** ACCORDING TO WHICH: "THIS IS PLAY"

SOPHISTICATED TECHNOLOGIES AND GAMEPLAY ARE *NOT* NECESSARY TO FOSTER A LUDIC ATTITUDE

ALL GAMES CAN GENERATE SERIOUS PLAY

TRADITIONAL DEFINITION OF SERIOUS GAMES

GAMES IN WHICH **EDUCATION** (IN ITS VARIOUS FORMS) IS THE
PRIMARY GOAL, RATHER THAN ENTERTAINMENT

(ABT IN MICHAEL AND CHEN, 2006: 23)

GROWING CONSENSUS

All games have serious implications as they enhance:

- ❖ motor skills
- ❖ spatial perception
- ❖ general curiosity
- ❖ cognitive skills
- ❖ mental maps

(Koster in Michael and Chen, 2006: 25)

USING ENTERTAINMENT GAMES TO GENERATE SERIOUS PLAY AND LEARN KNOWLEDGE

Entertaining games can encourage us to question cultural models, show us that they reflect the partial point of view of certain groups in a particular context, by simply putting us in someone else's shoes and forcing us to adopt other people's perspectives (2003: 146-153)



JAMES PAUL GEE

RELYING ON GAMES' CAPACITY TO DO SOMETHING TO PEOPLE INSTEAD OF THEIR CAPACITY TO MAKE PEOPLE DO SOMETHING

(RUFFINO, 2014: 54)

Unlike serious games, persuasive games "convey ideas effectively" without aiming towards a specific end. They question the way things work, challenge social conventions and oppose the "fixed worldviews of institutions" (2007: 29)

PERSUASIVE GAMES

IAN BOGOST

The persuasive potential of these games can rely on procedural rhetoric, that is to say rule-based arguments built into the program code (2007)

PROCEDURAL RHETORIC

IAN BOGOST

SEPTEMBER 12 (FRASCA, 2003)



THE SERIOUS ATTITUDE IS ALSO A TYPE OF THINKING, A *STATE OF MIND*, AN INTERPRETATIVE FRAMEWORK, BASED ON THE IDEA THAT "I CAN LEARN WHILE PLAYING"

HOW CAN WE FOSTER *SERIOUS PLAY* WITH ENTERTAINMENT GAMES?

ENTERTAINMENT GAMES CAN FOSTER SERIOUS PLAY WHEN *FRAMED* AS SERIOUS BY A PROFESSOR IN THE CONTEXT OF A CLASSROOM

*USING THE GAME
"WORLD OF
WARCRAFT" TO
EXPLAIN HOW THE
CAPITALIST
IDEOLOGY WORKS*



CONCLUSION

Even when few serious games are available to teach in a domain, it is still possible to foster serious play with:

- ❖ basic paper games
- ❖ role-playing games
- ❖ game design
- ❖ entertainment games

CONCLUSION

*WE SHOULD NOT LOSE SIGHT OF THE MOST BASIC
NEED WHEN IT COMES TO LEARNING WITH GAMES: THE
NECESSITY TO FOSTER A **SERIOUS LUDIC ATTITUDE**
AMONG THE PLAYERS AND THE IMPORTANCE OF THE
CONTEXT OF PLAY IN DOING SO*



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